

SECTION 09790

EXTERIOR CLEANING

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Cleaning of exterior wall, window and other surfaces by means of pressure washing as specified and shown on the drawings.

1.02 RELATED SECTIONS

- A. Section 04530 – Plaster/Stucco Repair
- B. Section 07920 – Sealants and Caulking
- C. Section 09830 – Elastomeric Coating

1.03 SUBMITTALS

- A. Provide submittals in accordance with Section as provided in Section 1300.
- B. Product Data: Submit manufacturer's technical information including basic material analysis, installation instructions, Material Safety Data Sheets (MSDS), and color chart for each material specified. Identify by manufacturer's product number and general classification.
- C. Field Samples: On all different types of surfaces, prepare cleaned samples on each substrate type. Provide 4-foot X 4-foot cleaned sample area for approval by the City of Houston. Sample to be representative of surface preparation to be used in performing all work.

1.04 QUALITY ASSURANCE

- A. As provided in Section 01400.
- B. Qualifications of Manufacturer
 - 1. Products used in the work included in this section shall be produced by manufacturers regularly engaged in the manufacturing of similar items and with a history of successful production and product installations.
- C. Qualifications of Contractor

1. Contractor shall be thoroughly trained and experienced in the necessary crafts. Contractor shall be made familiar with any unique requirements specified for proper performance of the work in this section.

D. Rejection

1. In the acceptance or rejection of work under this section, no allowance will be made for lack of skill or specification understanding on the part of the workmen. It shall be incumbent upon the contractor to use adequate numbers of skilled installers and to instruct them in the requirements of the project specifications as well as maintaining a set of the project specifications and drawings on the roof at all times.

E. Repairs

1. In the event inadequate or improper cleaning is determined, contractor shall make all repairs and replacements required to render the cleaning compliant with the project specifications. Repairs, due to improper performance shall be at the sole cost of the contractor.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Coordinate delivery with Consultant.

B. Material containers, mixing, and dilution:

1. Containers shall be closed and sealed except when materials are being removed.
2. Follow Manufacturers' instructions for mixing and stirring.
3. Products which have been diluted or cut-back, after their manufacture shall not be incorporated into the Work unless specified to be cut-back.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Work shall not commence during inclement weather.

B. Work shall not commence on a day when precipitation is imminent or probable.

C. Work shall not proceed over damp substrates.

D. Cleaners shall not be applied when the wind velocity is not within the range acceptable under the manufacturer's recommendations.

E. Do not begin work if rain is expected within twenty-four hours of application or, if

temperatures are expected to fall below 50° F, during the duration of the job.

- F. Work demolition or removal work shall not commence on a day when the chance of precipitation is 30% or higher as forecast by the National Weather Service or local forecasts.

1.07 SEQUENCING AND SCHEDULING

- A. Coordinate and schedule all phases of the Work of the Contract Documents with the City of Houston, Consultant, Subcontractors, Material Suppliers and other parties as necessary to ensure the smooth and orderly transition of separate phases, or portions, of the Work, the timely placement of components and materials, including the complete cooperation between parties and proper execution of the Work.
- B. Work shall not be performed outside of normal business hours without the prior approval of the Consultant and/or The City of Houston's representative.

1.08 WARRANTY

- A. General Warranty: Special warranties specified in this Article shall not deprive The City of Houston of other rights The City of Houston may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Contractor's Warranty: Written warranty, signed by contractor agreeing to repair or replace all work that does not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.
- C. Special warranties specified in this Article exclude deterioration or failure of elastomeric coatings from the following:
 - 1. Movement of the structure resulting in stresses on the coating exceeding coating manufacturer's written specifications for coating limitations caused by structural settlement or errors attributable to design or construction.
 - 2. Disintegration of substrates from natural causes exceeding design specifications.
 - 3. Mechanical damage caused by individuals, tools, or other outside agents.
 - 4. Changes in coating appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.01 CLEANING AGENTS

- A. General: Except as specifically otherwise directed by the City. Use only the type of sealants described in this section.
- B. Acceptable Cleaners:
 - 1. Clorox Concentrated Chlorine Bleach (10% sodium chloride concentrate) by Clorox Products Company.

PART 3 - EXECUTION

3.01 GENERAL

3.02 APPLICATION OF CLEANING PRODUCTS

- A. Contractor shall protect all adjacent surfaces as recommended by the manufacturer or required by the City of Houston.
- B. Contractor shall prepare all surfaces to receive cleaning products.
- C. Testing: It is recommended that the contractor test all cleaning processes prior to executing the main body of work so that results can be evaluated and adjusted as necessary. The City will provide a test site for evaluation purposes.
- D. Apply un-cut bleach directly to the surfaces to be cleaned with a pump sprayer at the rate of 1-gallon per 100 square feet. Allow to set for a minimum of 20 minutes and remove with hot water pressure sprayer. Re-apply as needed to remove all dirt, debris, mildew, etc., as acceptable to the City of Houston. Where required use a stiff bristle brush to remove stubborn stains. Contractor shall high temperature pressure wash all cleaning agent from surfaces when clean.
- E. Please see specifications and material Safety Data Sheets for proper use and protection methods.

3.03 PRESSURE WASHING

- A. Pressure Washing: Maximum pressure 2300 psi. Pressure and distance to cleaning surface shall be monitored and modified accordingly to prevent etching or damage to existing surfaces. Contractor will ensure all employees are thoroughly trained in pressure washing so as to minimize the chances of damaging the existing surfaces.

- B. The contractor shall test all cleaning processes prior to executing the main body of work so that results can be evaluated and approved by the City of Houston prior to proceeding with the work. The City will provide a test site for evaluation purposes.

3.04 EXTERIOR WINDOW CLEANING SPECIFICATIONS

- A. **Quality of Work:** Windows shall be washed clean and free of streaks, smears and visible soap residue. Accumulated dirt, paint specs, or other foreign debris must be scraped from windows. Frames shall be scrubbed to remove all dried dirt, insects, debris and other materials so as to be considered clean by the building representative. Windowsills shall be washed clean and all drippings wiped dry. Windows will be: washed with an approved window cleaning agent; scrubbed where applicable; and squeegeed to ensure the glazing clear, buffed finish.
- B. **Corrective Action:** Windows that have streaks, spotting, marks, dust, and debris following initial cleaning will be retreated at the expense of the contractor.
- C. **Hot Water Pressure Washing Equipment:** Hot water pressure washer may be used to clean windows; however, any damage created by the pressure washer such as: water damage; blown window seals; or broken glass, will be the sole responsibility of the contractor.

3.05 GENERAL CLEAN UP

- A. Remove all dust, debris, equipment, equipment, etc. created or used during cleaning procedures. Ensure entire site vehicles, windows etc. are clean on a daily basis.
- B. Keep adjacent surfaces clean and free from dirt and debris as the cleaning progresses.

END OF SECTION